

REMARKS

Reconsideration of the above-identified application is respectfully requested. By the present amendment claims 1-3 and 6 have been cancelled. Claim 5 was amended to change the term "comprising" to "consisting essentially of". Claim 4 was amended to change the dependency of claim 4. Below is a discussion of the rejections of claims 4, 5, 7 and 8.

35 U.S.C. §103(a) Rejection

Claims 4, 5, 7, and 8 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,895,821 to Schotthoefer et al., Meyer: Handbook of Explosives, U.S. Patent No. 5,626,360 to Lauritzen et al., U.S. Patent No. 3,899,973 to Brocart, U.S. Patent No. 4,326,901 to Leneveu et al., and U.S. Patent No. 4,842,658 to Boileau et al.

Claim 5 is patentable over Schotthoefer et al. in view of Meyer, Lauritzen et al., Brocart, Leneveu et al., and Boileau et al. because Schotthoefer et al. in view of Meyer, Lauritzen et al., Brocart, Leneveu et al., and Boileau et al. provide no teaching, motivation, or suggestion to use a gas generating material, which includes a single base composition that consists essentially of about 90 to about 95% by weight of the single-base composition nitrocellulose, about 3% to about 5% by weight of the single-base composition stabilizer which is a urea of an aromatic amine, and less than about 5% by weight of the single-base composition a non-energetic plasticizer.

As discussed in item 2 of the Office Action, Schotthoefer et al. teach an air bag apparatus that includes a single-base propellant, such as nitrocellulose. Schotthoefer et al., however, do not teach that the single-base propellant further includes a stabilizer in addition to the nitrocellulose, that the stabilizer is a urea of an aromatic amine, and that the stabilizer is used in an amount of greater than 2% by weight of the single-base propellant.

The Office Action argues that the motivation to modify Schotthoefer et al. to include greater than 2% by weight of a stabilizer of aromatic amine is provided by Meyer, Lauritzen et al., Brocart, Leneveu et al., and Boileau et al. Meyer, Lauritzen et al., Brocart, Leneveu et al., and Boileau et al. do not provide such a motivation.

The Office Action first relies on Meyer to teach that a single-base powder can consist of nitrocellulose and a stabilizer. Meyer, however, does not teach the weight % of stabilizer that is used with the nitrocellulose or that a combination of nitrocellulose and a stabilizer can be used as a single-base composition in a gas generating material for actuating a vehicle occupant protection device. Moreover, Meyer provides no information on what amount of stabilizer is required for single base composition that would be used for actuating a vehicle occupant protection device.

Likewise, Lauritzen et al. do not teach what amount of stabilizer can be used in a gas generating material for actuating a vehicle occupant protection device. Lauritzen et

al. only teach that an end cap for a linear igniter can comprise nitrocellulose and up to 2% of a stabilizer. There is nothing in Lauritzen et al. that suggests the igniter composition of Lauritzen can be used as a gas generating material.

The Office Action argues that the Applicant ignores the very clear teaching at Col. 6, lines 55-56 that up to 4% of stabilizer is commonly used in nitrocellulose. The Applicant does not ignore the teachings of Lauritzen et al. This teaching at best only suggests that up to 4% stabilizer can be used with nitrocellulose. This line does not suggest what particular stabilizers can be use at up to 4%, whether the stabilizer is utilized in a single base composition, and what function the nitrocellulose is used for. Thus, Lauritzen et al. cannot be relied on to show that a gas generating material for actuating a vehicle occupant protection device can include nitrocellulose and greater than 2% by weight of a stabilizer.

Brocart likewise provides no motivation to modify teaching of Schotthoefer et al. to provide greater than 2% by weight of stabilizer that comprises a urea of an aromatic amine. Brocart teaches only that an igniter can comprise nitrocellulose, 5-15% binder, and 2-3% centralite. Brocart, however, do not teach using 2-3% centralite and nitrocellulose for a gas generating material that is used to actuate a vehicle occupant protection device. An igniter device for igniting an explosive charge is not a gas generating material for actuating a vehicle occupant protection device. Moreover,

Brocart teaches using 5-15% by weight of a binder, which is outside of the consisting essentially language recited in claim 5. It is well settled that one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 USPQ 2d 1596 (Fed. Cir. 1988).

Additionally, Leveneau et al. provide no motivation for modifying the gas generating composition of Schotthoefer et al. to add greater than 2% of a stabilizer comprising a urea of aromatic amine centralite. Leveneau et al. only teach using 2% of centralite for a nitrocellulose composition that is then later modified with polyvinyl nitrate. Moreover, the composition in Leveneau et al. is for a fragmentable charge. There is no suggestion in Leveneau et al. that one skilled in the art would use a fragmentable charge as a gas generating material for actuating a vehicle occupant protection device.

Further, Boileau et al. do not suggest using an amount of stabilizer greater than 2% in a gas generating material for actuating a vehicle occupant protection device. The Office Action suggests that heat can degrade the amount of stabilizer in the single base composition over time. Boileau et al. however do not teach increasing the amount of stabilizer to offset the amount that degrades. Boileau et al. suggests adding an amount of zirconium carbonate. Thus, Boileau only suggests to one skilled in the art that zinc carbonate can be added to a single base composition that includes 1.2% diphenylamine.

The Office Action further argues that one skilled in the art looking at Lauritzen et al. and Boileau et al. would realize to vary the amount of stabilizer for a single base composition for a gas generating material depending on the heat expected and length of time. Lauritzen et al. and Boileau et al. do not suggest this. Lauritzen et al. as noted above only suggest varying the amount of stabilizer for an ignition material. Boileau et al. do not suggest varying the amount of stabilizer, but adding zinc carbonate to the ignition material.

The Office Action, also, argues that the fact Lauritzen et al. use the single base powder for an igniter does not lessen the factual or objective truth of the teaching relative to the temperature behavior of nitrocellulose. The Office Action suggests that regardless of use, nitrocellulose in an airbag apparatus is subject to the same temperature, whether as the ignition material or the gas generating material.

The applicant does not dispute the Examiner's assertion that nitrocellulose used as a gas generating material will be subjected to essentially the same environmental conditions as nitrocellulose used in an ignition composition. The applicant does dispute, however, that one skilled in the art would not be motivated by Lauritzen et al. to add greater than 2% stabilizer to the gas generating composition of Schotthoefer et al.

As noted in the Office Action, Lauritzen et al. teaches that the stabilizer affects the autoignition temperature of

Thus, although Schotthoefer et al. teach the use of a single-base propellant for a gas generating material of an air bag, Schotthoefer do not teach adding a stabilizer. Only Boileau et al. teaches adding a stabilizer to a single base composition used as a gas generating material for an air bag. Boileau et al., however, teaches using only 1.2% diphenylamine. The other references, i.e., Lauritzen et al., Brocart, Leneveu et al., teach only adding greater than 2% stabilizer to ignition materials and fragmentable charges.

Thus, Schotthoefer et al. in view of Meyer, Lauritzen et al., Brocart, Leneveu et al., and Boileau et al. do not teach or suggest all of the limitations of claim 1 therefore allowance of claim 1 is respectfully requested.

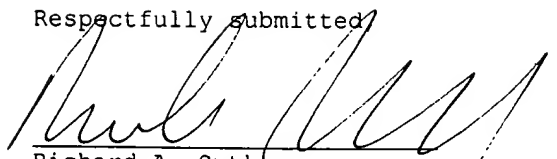
Claims 4 and 7 depend directly from claim 1 and therefore should be allowed in view of the aforementioned deficiencies of the rejection discussed with respect to claim 5.

Claim 8 contains limitations similar to claim 1 and should therefore be allowed in view of the aforementioned deficiencies discussed with respect to the rejection of claim 5.

In view of the foregoing, it is respectfully submitted that the above-identified application is in condition for allowance, and allowance of the above-identified application is respectfully requested.

Please charge any deficiencies or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted



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